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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/507,342   | 09/10/2004  | Bart-Hendrik Huisman | NL 020257           | 2859             |
| 24737  | 7590        | 11/16/2006           | EXAMINER            |                  |
| PHILIPS INTELLECTUAL PROPERTY & STANDARDS<br>P.O. BOX 3001<br>BRIARCLIFF MANOR, NY 10510 |             |                      | NGUYEN, JOSEPH H    |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2815                |                  |

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/507,342

Applicant(s)

HUISMAN ET AL.

Examiner

Joseph Nguyen

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 5/2/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I including claims 1-8 and 11-12 in the reply filed on 09/07/2006 is acknowledged. The traversal is on the ground(s) that Group I should comprise claims 1-8, 10 and 12 because they are directed to product made and group II should comprise claims 9 and 11 because they are directed to process of making. This is found persuasive because in light of the amendment to claims, claims 1-8, 10 and 12 are now directed to product. As such, claims 1-8, 10 and 12 are prosecuted herein.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation, "the active layer between the first and second active element is removed" is not described in the specification to enable one skilled in the art to make and/or use.

Further, how can this device work without the active layer, which contains a semiconductive or electroluminescent organic material?

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohsedo et al. (Synthesis and electrochromic properties of a methacrylate polymer containing pendant terthiophene).

Regarding claim 10, Ohsedo et al. discloses in page 159 the chemical formula of the claimed monomer having a conjugated unit and non-conjugated units as recited in claim 10.

Regarding claim 12, applicant admitted in page 2, lines 21-30 of the instant application Ohsedo et al. discloses the claimed polymer. It is noted that the polymer disclosed by Ohsedo et al. may be doped but still meet the claimed polymer, which does not exclude “doped” or “undoped” in its recitation. Further, Ohsedo et al. discloses the acrylate monomers having oligothiophenes will produce polymers (page 157, right column). Applicant teaches the reactive end group is acrylate (page 3, lines 8-9). As such, Ohsedo et al. teaches of the reactive end group.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ong et al. (US 6,949,762 B2) in view of Ohsedo et al.

Regarding claim 1, Ong et al. discloses in figure 1 an electronic device with an active element having a first and second electrode 20, 22, which are separated from each other by an active layer 12 containing a semiconductive material (column 22, lines 53-60). Ong et al. does not disclose the claimed polymer. However, applicant admitted in page 2, lines 21-30 of the instant application Ohsedo et al. discloses the claimed polymer. In view of such teaching, it would have been obvious at the time of the present invention to modify Ong et al. by including the polymer disclosed by Ohsedo et al. as a potential electrochromic material to form as an active layer such that the electronic device can function in a better manner.

Regarding claims 2-4, Ohsedo et al. discloses the characteristics of the claimed polymer (See pages 158-160).

Regarding claim 6, Ohsedo et al. discloses in page 159 the chemical formula of the claimed conjugation unit.

Regarding claim 7, as best understood, the Examiner takes the Official Notice that it would have been obvious at the time of the present invention to form another

active element on said active element since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis paper Co. vs. Bemis Co.*, 193 USPQ 8.

Regarding claim 8, Ong et al. discloses in figure 1 the active element is a transistor wherein a third electrode 18 separated from the active layer 12 by a dielectric 14 and wherein the active layer 12 comprises an intrinsic undoped semiconductor material (column 22, lines 53-60). It is noted that Ong et al. teaches layer 12 is the polythiophene semiconductor layer (column 22, lines 59-60), which is intrinsic and undoped.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ong et al. (US 6,949,762 B2) and Ohsedo et al. in view of Talroze et al. (US 6,563,132 B1).

Regarding claim 5, Ong et al. and Ohsedo et al. disclose substantially all the structure set forth in claim 5 except the polymer including the intermediate unit comprising a mesogenic group. However, Talroze et al. discloses in column 5, lines 8-14 the polymers include mesogenic to provide liquid crystal form and desirable physical and/or chemical properties. In view of such teaching, it would have been obvious at the time of the present invention to modify Ong et al. and Ohsedo et al. by including the polymer including the intermediate unit comprising a mesogenic group to provide liquid crystal form and desirable physical and/or chemical properties.

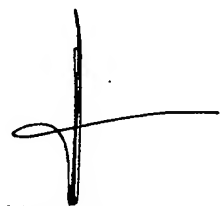
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 8:30 am- 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph Nguyen

November 7, 2006.



KENNETH PARKER  
SUPERVISORY PATENT EXAMINER